MARKED UP VERSION OF THE AMENDED CLAIMS

(Version with marking to show changes made)

1. (currently amended) A device to generate a plasma for the production of ozone and/or oxygen ions in the air, based an the principle of dielectrically impeded discharge, with two electrodes (3, 4) to which a high voltage from an alternating voltage generator is applied and between which an electrically insulating element (1, 7) is situated, wherein ~~characterized in that~~

a) the element consists of a flat, electrically insulating carrier (1, 7), whose material has a dielectric constant $\varepsilon_{r\ [[o]]\ carrier}$ which is greater than 50 (in words, $\varepsilon_{r\ [[o]]\ carrier}^{\ [[o]]}$ > fifty) or at least greater than 30 (in words, $\varepsilon_{r\ [[o]]\ carrier}^{\ [[o]]}$ > thirty),

b)a flat electrode (4), lower electrode (4), made of an electrically conductive material, is applied onto one of [[the]] main surfaces of the carrier (1, 7), the rear,

c) at least one electric insulating layer (2, 8) made of a dielectric material is

applied onto the other main surface of the carrier (1, 7), the front, which is ~~exposed~~ exposable to the air, ~~whereby~~ wherein the insulating layer (2, 8) only partially covers the front of the carrier (1, 7),

d) the dielectric constant of the carrier (1,7) and that of the insulating layer (2, 8 $\varepsilon_{r\ [[o]]\ carrier}^{[[o]]}$ > fifty, the dielectric constant of the insulating layer (2, 8) is between 50 [[']]> $\varepsilon_{r\ [[o]]\ insulating\ layer}^{[[o]]}$ > 5 and, at a dielectric constant of the carrier (1, 7) of $\varepsilon_{r\ [[o]]\ carrier}^{[[o]]}$ > thirty, the dielectric constant of the insulating layer (2, 8) is between 30 [[']] > $\varepsilon_{r\ [[o]]\ insulating\ layer}^{[[o]]}$ > 5, ~~so that the~~ for allowing a mirror discharge effect to occur ~~occurs~~,

e)a band-shaped electrode (3, 10), upper electrode (3), made of an electrically conductive material that only partially covers the insulating layer (2, 8), is situated an the insulating layer (2, 8).

2. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

the insulating layer (2, 8) consists of several electrically insulating partial layers whose dielectric constants decrease as [[the]] a distance from the carrier (1, 7)

increases, so that the top partial layer has the smallest dielectric constant of the partial layers, ~~whereby~~ wherein the upper electrode (3, 10) is arranged on the top partial layer.

3. (currently amended) The device according to Claim 1 or 2, wherein ~~characterized in that~~

at a dielectric constant ε_r of the carrier that is at least greater than 30, the insulating layer (2, 8) has a dielectric constant ε_r between 5 and less than 30, whereby, if several insulating layers (2, 8) are present, their dielectric constants ε_r are graduated between 5 and less than 30.

4. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

the carrier (1, 7) and the insulating layer (2, 8) or the insulating layers are made of a ceramic material ($A1_2O_3$) or glass, ~~for example,~~ polysilicon or amorphous silicon, or of an organic plastic~~, for example,~~ polyamide, ~~whereby~~ wherein the

insulating layer (2, 8) can optionally also be made of an oxidic material, ~~for example,~~ metal oxide ~~such as~~ or zinc oxide.

5. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

the thickness of the insulating layer (2, 8) or of the insulating layers (2, 8) is less than the thickness of the carrier (1, 7), ~~whereby~~ wherein the thicknesses are ~~preferably~~ in a ratio of 1:4 to 1:25.

6. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

the insulating layer (2, 8) or insulating layers consist of films made of organic, electrically insulating plastics ~~, for example,~~ made of polyamide or of thermoplastic or thermoset plastic or acrylate or polymers, ~~whereby~~ wherein, when several films are employed, their dielectric constants are graduated.

7. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

the carrier (1, 7) has an elongated-flat ~~, preferably~~ rectangular format, whereby the lower electrode (4) that is situated directly an the carrier (1, 7) covers the rear of the carrier (1, 7) over a large surface area ~~, preferably~~ completely or almost completely, and is situated geometrically centered an said carrier, and in that the insulating layer (2, 8) located an the front of the carrier (1, 7) as well as the upper electrode (3, 10) located an the insulating layer (2, 8) extend along the longitudinal axis (6) of the carrier (1, 7), each in the form of a band geometrically centered an the carrier or an the insulating layer, ~~whereby~~ wherein the surface area of the lower electrode is larger than the surface area of the insulating layer.

8. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

both electrodes (3, 4, 10) are designed as grids or nets, ~~whereby~~ wherein the surface area of the lower electrode (4) is larger than the surface area of the upper electrode (3, 10).

9. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

the insulating layer (2, 8) and the upper electrode (3, 10) situated an it, which are structured in a meander-shaped or finger-shaped or comb-like way, can be situated geometrically centered an the carrier (1, 7), ~~whereby~~ wherein the upper electrode (3, 10) likewise runs geometrically centered an the insulating layer (2, 8).

10. (currently amended) The device according to Claim 9, wherein ~~characterized in that~~

the voltage from an alternating voltage generator is fed into the upper electrode (3, 10) via an electric resistor (12), ~~whereby~~ wherein, with the meander-shaped or finger shaped or comb-like design of the upper electrode (3, 10), such a resistor (12) is present at each meander or finger or tooth (11) as [[the]] a supply point.

11. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

the upper electrode (3, 10) is made of a metallic electrically conductive material or of an electrically semi-conductive material.

12. (currently amended) The device according to Claim 11, wherein ~~characterized in that~~

the upper electrode (3, 10) is made of one of the following materials: ~~either of~~ graphite, charcoal or electrically conductive metal alloys with low electrode work functions, ~~such as~~ including barium titanate, barium-zirconium titanate, barium-gallium titanate

or semi-conductive, dope metal oxides ~~such as~~ including zinc oxide, tin dioxide, tungsten trioxide, iron oxide.

13. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

the lower electrode (4) which consists ~~, for example,~~ of vapor-deposited platinum, is insulated and passivated towards the outside with a very thin layer of glass (5).

14. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

the surface area ratios of the upper electrode (3,10) to the insulating layer (2,8) to the carrier (1,7) can be approximately 1:4:8.

15. (currently amended) The device according to Claim 1, wherein ~~characterized in that~~

two such devices are each joined with the rear lower electrodes (15) on each other and with the insulating layers (17, 17') lying in-between to form a flat assembly (14), ~~so that~~ wherein the upper electrodes (18, 18') are each on the outside of the flat assembly (14).

16. (currently amended) The device according to Claim 15, wherein ~~characterized in that~~

the flat assembly (14) has a sandwich-like structure with just one single inner electrode (15), which represents the lower electrode (15).

17. (currently amended) The device according to Claim 16, wherein ~~characterized in that~~

the outer upper electrodes (18, 18') of the flat assembly (14), which can be touched from the outside, are ~~grounded or connected~~ connectable to ground or to the earth.

18. (currently amended) The device according to Claim 1 or 15, wherein ~~characterized in that~~

the carrier or carriers consist of a flexible dielectric carrier material in order to form a band-shaped, rollable spiral device (19) or flat assembly (19).

19. (new) A device to generate a plasma for the production of ozone and/or oxygen ions in the air, based an the principle of dielectrically impeded discharge, comprising the following features:

a) the device comprises a flat, electrically insulating carrier (1, 7), whose material has a dielectric constant ε_r that is at least greater than 30 (in words, ε_r [[o]] > thirty),

b) an electrode (4), lower electrode (4), made of an electrically conductive material, is applied onto one of main surfaces of the carrier (1, 7), the rear;

c) at least one electric insulating layer (2, 8) made of a dielectric material is applied onto the other main surface of the carrier (1, 7), the front, which is exposable to the air, wherein the insulating layer (2, 8) only partially covers the front of the carrier (1, 7),

d) the dielectric constant of the carrier (1, 7) and that of the insulating layer (2, 8) are different, wherein the difference between the dielectric constants of the carrier (1, 7) and of the insulating layer (2, 8) or of the partial layers is selected for allowing a mirror discharge effect to occur,

e) an electrode (3, 10), the upper electrode (3), made of an electrically conductive material that only partially covers the insulating layer (2, 8), is likewise situated an the insulating layer (2, 8);

f) a high voltage from an alternating voltage generator is applied to the two electrodes (3, 4).